INSIGHT

North Carolina's Labor and Economic Outlook

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NC Quick Stats:	*August 2001*
Labor Force	3,997,600
Employment	3,796,800
Unemployment	200,800
Unemployment Rate	5.0%

Note: Data are preliminary and are seasonally adjusted.

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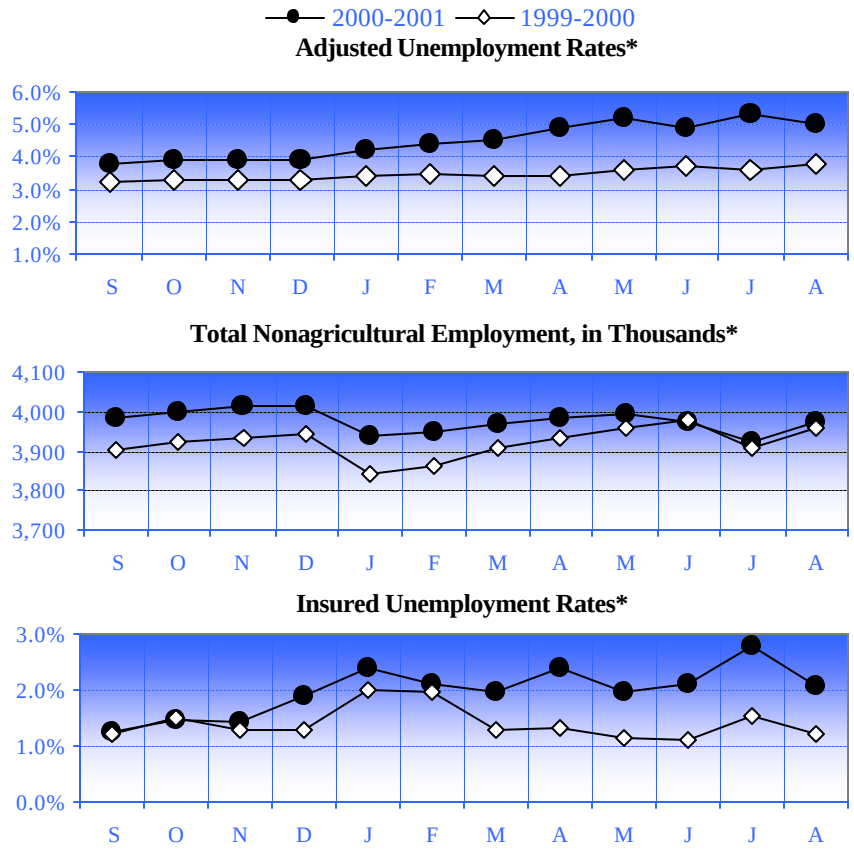
Labor Market Abstract

During August 2001, the North Carolina seasonally adjusted unemployment rate decreased to 5.0 percent from 5.3 percent the previous month. During the same period, the civilian labor force grew by approximately 9,000. Employment in the service producing industries rose during the month with most increases occurring in retail trade, hotels & lodging and health services. A decrease occurred in the manufacturing industry with losses primarily in textiles, furniture and electronic equipment. Overall, the unemployment level decreased from an estimated level of 210,800 in July 2001 to 200,800 in August 2001.

Economic Indicators in North Carolina

Economic indicators used to predict future economic activity are referred to as leading indicators, while coincident indicators are used to help determine changes in the economy that are concurrent with such indicators. All graphs reflect the most recent monthly statewide data.



*Source: ESC, Labor Market Information Division

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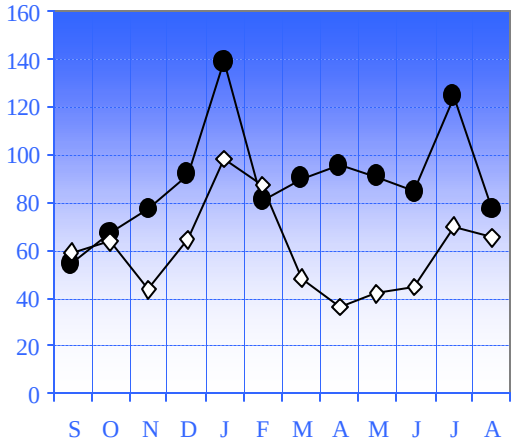
Economic Indicators in North Carolina (Continued from Page 1)

2000-2001 1999-2000

Initial Claims

Statewide, in Thousands



By ESC Local Offices

	Latest Month	Previous Month	Previous Year	Percent Change From Last Year
Asheville	851	1,529	946	-10.0
Charlotte	4,027	3,394	2,103	91.5
Durham	1,074	1,126	557	92.8
Fayetteville	1,347	1,661	1,007	33.8
Goldsboro	609	1,144	611	0.0
Greensboro	2,450	2,923	1,834	33.6
Greenville	1,274	1,781	794	60.5
Hickory/Newton	5,683	10,669	2,099	170.7
Jacksonville	438	365	471	-7.0
Raleigh	2,834	3,005	1,814	56.2
Wilmington	1,070	1,200	828	29.2
Winston-Salem	2,771	4,837	2,345	18.2

Source: Employment Security Commission

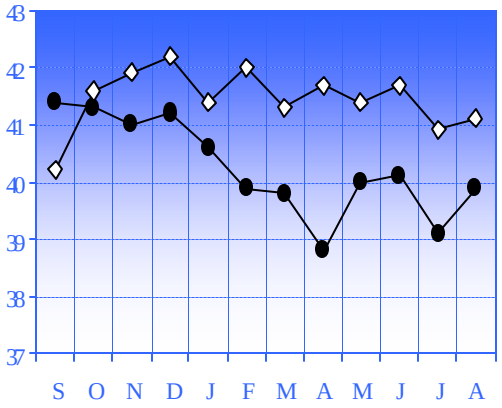
Average Weekly Hours Worked in Manufacturing

In Selected Metropolitan Statistical Areas

	Latest Month	Previous Month	Previous Year	Percent Change From Last Year
Asheville	39.8	39.9	41.7	-4.6
Charlotte/Gastonia	40.3	39.8	41.7	-3.4
Greensboro/ Winston-Salem/ High Point	38.9	37.9	40.1	-3.0
Raleigh/Durham/ Chapel Hill	41.3	40.3	43.1	-4.6

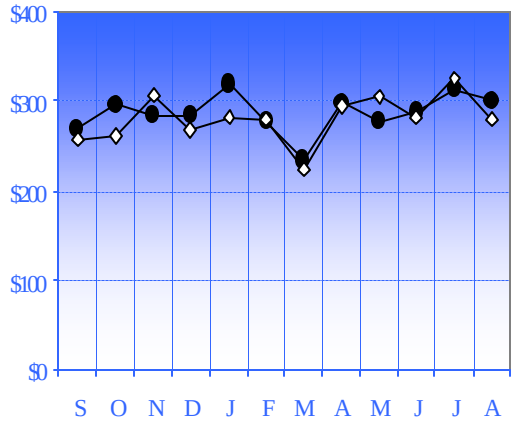
Source: Employment Security Commission

Statewide



Sales and Use Tax Revenues, in Millions

Statewide



In Selected Cities

	Latest Month	Previous Month	Previous Year	Percent Change From Last Year
Asheville	211.9	191.3	207.0	2.4
Charlotte	1,024.5	1,124.5	1,062.2	-3.5
Durham	252.1	253.1	258.4	-2.4
Fayetteville	197.1	196.9	226.0	-12.8
Greensboro	521.2	503.4	525.6	-.01
Greenville	141.9	134.3	143.1	-.01
Hickory	133.2	125.9	124.1	7.3
Raleigh	617.7	636.0	615.2	0.0
Wilmington	240.4	222.4	224.4	7.1
Winston-Salem	359.6	342.4	369.1	-2.6

Source: N.C. Department of Revenue, Tax Research Division

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Issues in North Carolina's Unemployment Insurance System: Average Duration

Introduction

In the Unemployment Insurance (UI) system, duration refers to the number of weeks UI claimants receive benefits before returning to work. One of the primary objectives of the Employment Security Commission (ESC) is to assist in job search, thereby reducing the average duration of filing for benefits. A low average duration means UI recipients are returning to work quickly, thus saving the UI system, and the employers in the state that fund it, considerable sums of money. For example, if North Carolina's average duration had been reduced by one week over the last year, the UI Trust Fund would have saved over $64 million. This value is obtained by multiplying the average weekly benefit amount in the state over the last year ($235.31) by the number of "first payments" in the same period (272,597).

North Carolina's low average duration of filing for UI means claimants are returning to work faster than in other states.

North Carolina would benefit more from a reduction in average duration than other states in the Southeast because both its average weekly benefit amount and number of first payments are relatively high. For instance, Georgia and Virginia, two comparably-sized states, would have saved only $44 million and $22 million, respectively, if their durations had been reduced by one week. Georgia's average weekly benefit amount was $215.39 and its number of first payments was 203,959 while the corresponding numbers for Virginia were $210.22 and 106,018.

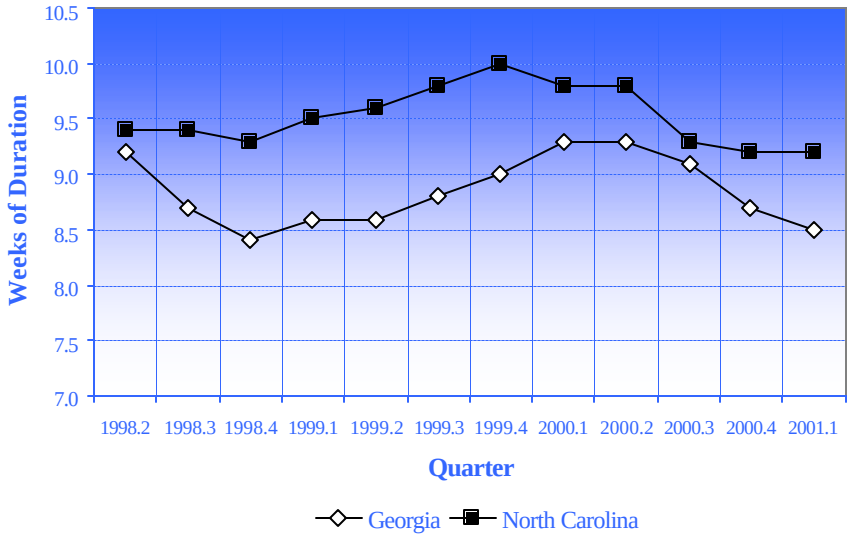
A one-week reduction in North Carolina's average duration last year would have saved its UI Trust Fund over $64 million.

Fortunately, over the last few years North Carolina has had either the 2nd or 3rd lowest duration among the states, after Georgia (and recently New Hampshire). In the first quarter of 2001, North Carolina's average duration for the 12-month period was 9.2 weeks, compared to 8.5 weeks for Georgia and 8.7 weeks for New Hampshire. As Figure 1 shows, the average duration in North Carolina has been consistently above Georgia's in the last few years.[1]

At 9.2 weeks, North Carolina's average duration is the third lowest in the nation.

Why is North Carolina's average duration higher than Georgia's? This study looks at this issue from three perspectives. First of all, there are economic and demographic differences in the workforces between the states. Factors such as the number of manufacturing workers or the overall unemployment rate may cause a given state's duration to differ from another state's, all else equal. The next section, "Economic and Demographic Determinants of Duration," attempts to show that some of these differences imply that North Carolina's duration should be higher than Georgia's.

Figure 1: Average Durations in North Carolina and Georgia



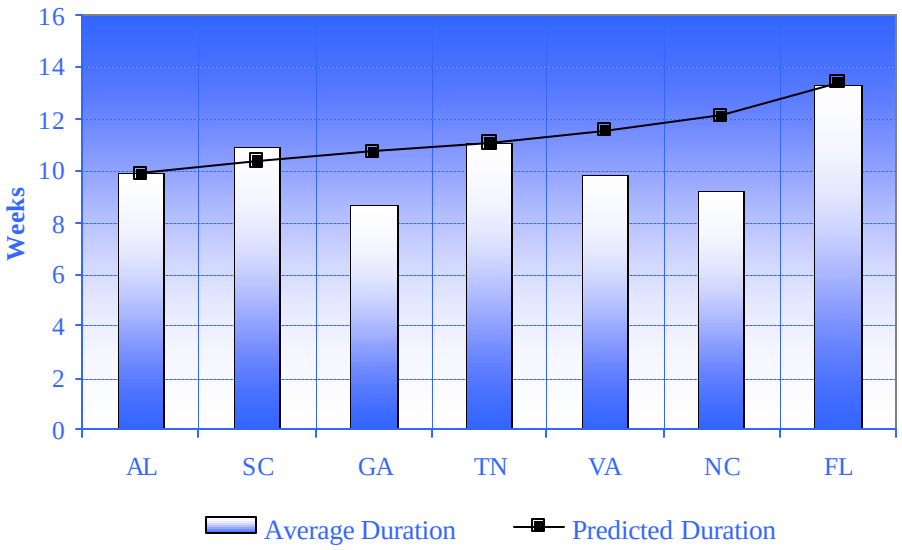
Differences in UI laws and reemployment programs in the respective states may explain the differences in duration.

Secondly, there are differences in UI laws between North Carolina and Georgia. Although the states must conform to general federal guidelines when operating a UI system, each state has some flexibility in the procedures of its UI system. For example, states have different maximum weekly benefit amounts and they may establish different laws for allowing UI claimants to refuse job offers. These differences, detailed in the section "Differences in UI Laws," can have important implications for the length of average durations.

Thirdly, reemployment programs in the respective states are likely to have an important impact on duration. North Carolina and Georgia have both implemented special reemployment initiatives in the last few years. We will compare these initiatives in the section titled "Comparisons of North Carolina's and Georgia's Reemployment Programs."

Economic and Demographic Determinants of Duration

Figure 2: Average Duration in 2000 Compared with Predicted Duration



In order to compare North Carolina's duration to other states', one should look at how the characteristics of the economy and workers in the state affect average duration. Using just some of the characteristics of the workforce and other economic factors that are important to duration, we have predicted the average duration for the 50 states. Figure 2 shows the predicted durations and the actual durations for the seven southeastern states. (See Appendix 1 for a graph of all 50 states.)

North Carolina's predicted duration is higher than several other southern states, particularly Alabama, South Carolina, Georgia, Tennessee and Virginia. North Carolina's actual average duration was 2.9 weeks shorter than predicted by this model, which was the largest difference of the states in the region.

Regression analysis on data from 50 states in 2000 predicted North Carolina's duration to be higher than several other southern states, particularly Alabama, South Carolina, Georgia, Tennessee and Virginia.

The predicted durations were derived using a regression analysis on data from the 50 states in 2000. With this regression, one can make some general statements about how certain variables affect duration and how, when taken together, these variables impact North Carolina's duration relative to other states.

Six variables were used to predict average duration. These variables were chosen based on assumptions that they were important factors in determining duration, as explained in the following paragraphs. In addition, data on these variables were readily available for all 50 states.

The first of these variables is the number of workers in the state who were covered by unemployment insurance, i.e. covered employment, in 2000. It is expected that states with larger covered employment will have a higher average duration. Employment offices in larger states may often face a greater number of job applicants. North Carolina's covered employment is among the largest in the Southeast region, as shown in Figure 3. However, it is less than Florida's and not significantly higher than either Georgia's or Virginia's.

Figure 3: Covered Employment in 2000

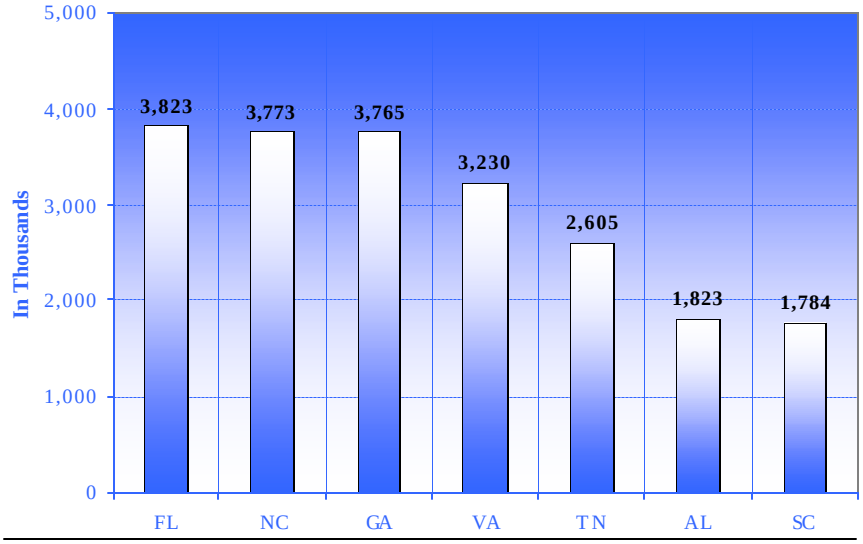
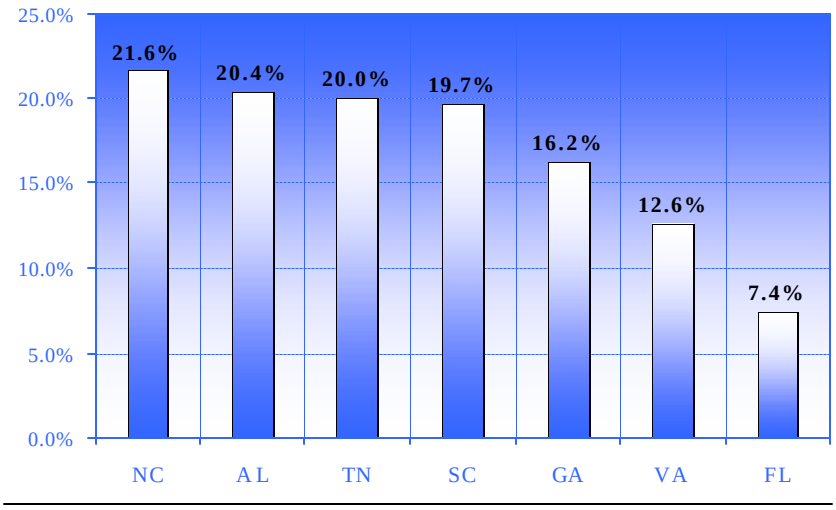


Figure 4: Share of Manufacturing Employment in Overall Employment in 1999



The second determinant of duration used is the share of manufacturing employment in the overall covered employment in the state. It is expected that states with more manufacturing will have higher durations, since many manufacturing workers have more difficulty finding reemployment than workers in other industries. In support of this, Current Population Survey (CPS) data show that unemployed manufacturing workers have longer individual durations than workers from other industries. As Figure 4 shows, among the Southeastern states, North Carolina has the highest percentage of its covered workers in the manufacturing sector.

The third variable is the maximum weekly benefit amount for UI recipients in 2000. It is expected that a higher maximum benefit amount will increase duration. More generous benefits may delay the need for workers to find reemployment. Figure 5 shows that, among the states in the Southeast, North Carolina had the highest maximum weekly benefit amount as of July 2001. This rose to $396 August 1, 2001.

Figure 5: Maximum Weekly Benefit Amounts in 2000

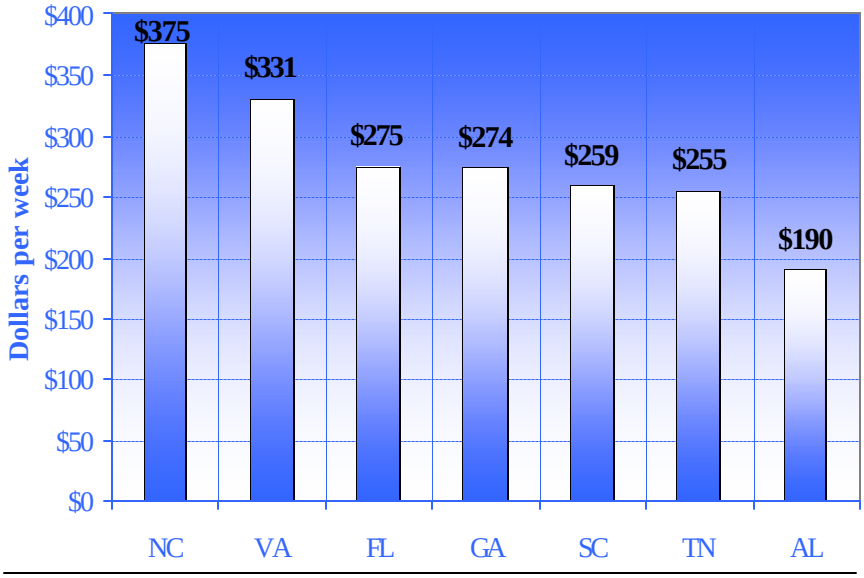
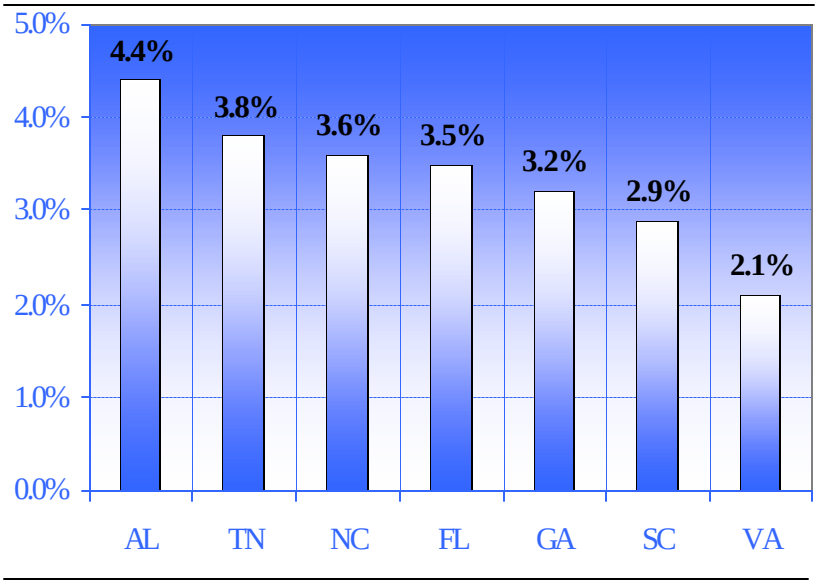


Figure 6: Fourth Quarter 2000 Average Total Unemployment Rates



The average unemployment rate in the state during fourth quarter 2000 is the fourth variable. A higher unemployment rate would imply a weaker labor market, so that unemployed workers face a harder time finding employment. This would lengthen duration in states with high unemployment. As Figure 6 shows, North Carolina's unemployment rate was high relative to most of the other states in the region during fourth quarter 2000.

The fifth factor considered important to duration is whether the state has a one-week waiting period for UI recipients. Only twelve states do not have waiting periods. Two of these states, Georgia and Alabama, are in the Southeast. These states may have a higher proportion of short-term unemployed filing for benefits in that first week, which would reduce the state's average duration.

A one-week waiting period for UI recipients may affect a state's duration rate.

The final determinant of duration is whether a state is located in the South. This is used to isolate the idiosyncratic nature of the Southern labor market. For instance, the lower unionization of the labor force in the South may increase job availability and turnover. Given this, it is likely that duration will be shorter in Southern states. All of the states in our region are expected to have lower durations because of this.

The proportion of attached claims filed within the manufacturing sector affects duration.

The results of the regression are summarized in the following table. All of the variables had the expected impact on duration, except the share of manufacturing in covered employment. The lower duration for states with higher shares of manufacturing employment may be due to the high proportion of attached claimants within the manufacturing sector. Attached claimants spend a short time receiving benefits before returning to work with their company. North Carolina has a high proportion of attached claims. The impact of attached claimants cannot be directly obtained because the data on the other states are unavailable.

Variables affecting duration . . .	**. . . and their impact estimated by the model**
1. covered employment	an additional one million workers raised duration by about two-tenths of a week
2. share of manufacturing in employment	a 10 percentage point increase (from, say, 20% to 30%) lowered duration by a little more than one week
3. maximum benefit amount	a $10 increase raised duration by one-tenth of a week
4. average total unemployment rate	a 1 percentage point increase raised duration by about two-thirds of a week
5. 1-week waiting period	increased duration by approximately .8 weeks
6. Southern state	reduced duration by 1.2 weeks

Although the regression explained over half the differences in the actual durations of the 50 states, it did not predict every state's duration exactly. For instance, it overestimated North Carolina's average duration by nearly three weeks. There are other factors affecting duration that were not considered in the model. As mentioned earlier, the number of attached claimants would be important. A second factor is the reemployment program in the state, discussed later. Still other factors include the age and racial distribution of the state's workforce, as well as, the amount of urbanization within the state.

All factors which may affect duration were not considered in the model.

Differences in UI Laws

North Carolina and Georgia differ in eligibility requirements and benefits, as established by their respective UI laws. As previously stated, North Carolina has a higher maximum weekly benefit amount than Georgia, which contributes to a higher expected duration. North Carolina's maximum weekly benefit was $375, compared to $274 in Georgia. This difference is a result of the way the two states calculate the maximum weekly benefit: in North Carolina, it is two-thirds of the average weekly wage in the state while in Georgia it is less than one-half. Therefore, UI recipients whose high-quarter earnings are relatively high will receive a larger proportion of their pre-layoff wages in benefits in North Carolina than in Georgia. For example, a worker with average weekly earnings of $800 would only receive 34% of this in UI benefits in Georgia, but would have a wage replacement rate of 47% in North Carolina. Thus, claimants in Georgia have a greater incentive to find new jobs quickly.

The difference in the way the two states calculate the maximum weekly benefit creates a significant difference in what each state pays.

Under the different state laws, it seems that claimants have an easier time rejecting job offers in North Carolina than in Georgia. Georgia's law specifies that individuals who receive benefits for 10 or more weeks cannot reject a job offer if the wages are at least 66 percent of their high-quarter base period wages. North Carolina does not have such a provision. However, it is a general practice in North Carolina's local ESC offices to encourage claimants who have been unemployed for many weeks to accept jobs which offer lower wages. Also, North Carolina has a provision in its law that allows individuals to refuse a job if they cannot obtain adequate childcare or elder care.

There are also differences in claimant eligibility requirements.

Both North Carolina and Georgia determine the duration of benefits based on wages earned in the base period. Most UI recipients in both states will be eligible for 26 weeks of benefits. But if workers earned relatively little in the entire base period compared to the high quarter, then the benefit period may be reduced. In North Carolina, the minimum benefit period is 13 weeks, while in Georgia the benefit period may be as low as eight weeks.

Maximum eligibility in both states is 26 weeks of benefits.

Comparison of North Carolina's and Georgia's Reemployment Programs

Again, both North Carolina and Georgia have received state funds in order to provide a reemployment program for eligible claimants that are receiving unemployment benefits. The North Carolina program, the Reemployment Initiative (REI), was funded in January 2000 and was implemented in April

2000. Georgia's program, the Claimant Assistance Program (CAP), began with service to select areas of Georgia in 1987, but expanded to cover the entire state eighteen months later. Georgia's CAP was used by North Carolina as a model for its REI; therefore, there are many similarities between the programs. Some differences exist, as well.

Georgia's reemployment initiative program was used by North Carolina as a model for its REI.

The CAP went through a slow and evolving process over the years to become what it is today. Initially, CAP provided one-on-one contact with claimants and also offered workshops. Now, almost all efforts are in the form of one-hour specialty workshops designed to meet the needs of the claimants based on their input and suggestions. There is, however, one-on-one time still available for claimants at the workshops. Until recently, CAP participants included only claimants that were separated from work through lack of work. Now the program includes those who are without work for other reasons, as well, such as quitting due to child or elder care or other cause, being fired, etc. North Carolina's REI only includes those that have been separated through lack of work.

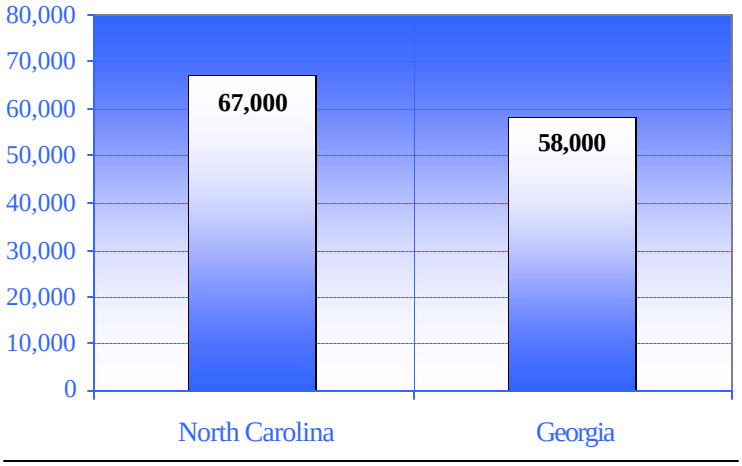
In CAP, both methods of providing claimants services and staff training have evolved extensively over time.

The CAP local office staff undergoes training involving six consecutive courses taught by consultants. Staff members of each district meet every six months to discuss the program and ways they can improve their performance. There is also an emphasis on trying to ensure that the most successful staff are used in the program. Staff members participate in an information exchange program that matches low performance workers with high performance ones to improve overall quality. There is consistent monitoring of the performance of staff members.

Georgia has received between $14-19 million yearly for CAP while North Carolina received $9 million in the first year for REI.

One of the reasons Georgia is able to provide so much training for its staff is that it receives more appropriated funds for its program. Georgia has received between $14-19 million per year for the implementation of CAP. This compares to approximately $9 million that was appropriated for the REI program in North Carolina during its first year of implementation. CAP is funded for a five-year time period while REI is funded for two years at a time. Also, Georgia has received no indication from its legislature that it plans to terminate CAP, while REI funding is not included in North Carolina's budget effective July 1, 2001.

Number of Claimants Served by a Reemployment Program in 2000



Georgia and North Carolina both employ 160-200 staff members in their programs. However, Georgia has 53 offices statewide while North Carolina has around 90 offices. This results in more staff available at each office in Georgia. The REI program served approximately 67,000 claimants last year, while CAP served 58,000. However, the programs offered by the CAP staff were also provided to 9,000 participants in Georgia's UI profiling program.

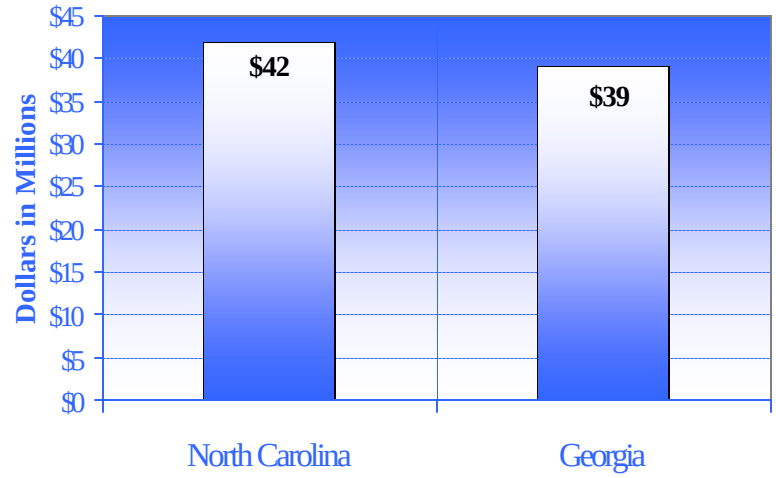
The CAP is a 17-week long program while REI is 12 weeks long. Participants in CAP are required to meet with a staff person after the first, fifth, ninth and fourteenth weeks of the

program. Contact is not required after the seventeenth week. REI participants are required to contact staff either in person, by phone or by e-mail on a weekly basis for the first four weeks and biweekly for the remaining eight weeks. CAP directs its participants into one of three tracks: self-serve, staff assisted and intensive. In both programs, participants are subject to adjudication if they do not follow the expectations of the program. However, this does not happen often.

For the year ending June 2001, Georgia received approximately 252,000 initial separated claims while North Carolina received around 295,000. Of these, about 23 percent in each state participated in their respective reemployment program, CAP or REI. These efforts resulted in an entered employment rate of 52.7 percent for the 17-week CAP and a 44.4 percent rate for the 12-week REI, which in both cases amounts to roughly 30,000 people.

While the main goal of both CAP and REI is to aid in UI claimants reentering the workforce as soon as possible, another benefit of both programs is to increase the savings to each state's UI Trust Fund. One way this is obtained is by lowering the duration. Although Georgia's overall duration is lower than North Carolina's, the savings are somewhat different. It is estimated that CAP saved Georgia's trust fund $38.9 million for one year and North Carolina saved its trust fund an estimated $42 million for the same time period. Given that roughly $5-10 million more is spent on Georgia's CAP compared to REI, North Carolina's REI program is more cost effective.

Trust Fund Savings from Reemployment Programs in 2000



Both the CAP and REI are beneficial to their participants and trust funds in their respective states. One might argue that Georgia has been more successful in its reemployment efforts because it has been operating this program for over a decade and funds it at a higher level than North Carolina. However, because these programs are so similar and because they affect only a portion of UI claimants in each state, it is unlikely that the differences between the programs contribute much to the differences between average durations in these two states.

Conclusion

Shortening the length of time UI claimants receive benefits, or average duration, provides significant savings to a state's UI system. Currently, North Carolina has the third-lowest average duration among the states, although Georgia's duration is .7 weeks shorter. This article has attempted to cover some of the factors that explain why one state's duration is not as low as another's.

Based on the regression analysis of data from the 50 states, North Carolina is expected to have a higher duration of filing for UI benefits than many of the other states in our geographic area, including Georgia. One of the factors which tends to push up North Carolina's duration is its high maximum weekly benefit amount. North Carolina has the highest maximum weekly benefit of all the states in the Southeast; it is approximately $100 more than Georgia's. The one-week waiting period for UI recipients is another factor increasing North Carolina's duration relative to Georgia's. Also, North Carolina's relatively high unemployment rate should make it harder for UI claimants to find reemployment quickly.

In addition to the variables used in the regression, differences in UI laws between North Carolina and Georgia would likely imply a higher duration in North Carolina. For instance, North Carolina's laws permit claimants to reject a wider range of unfavorable job offers.

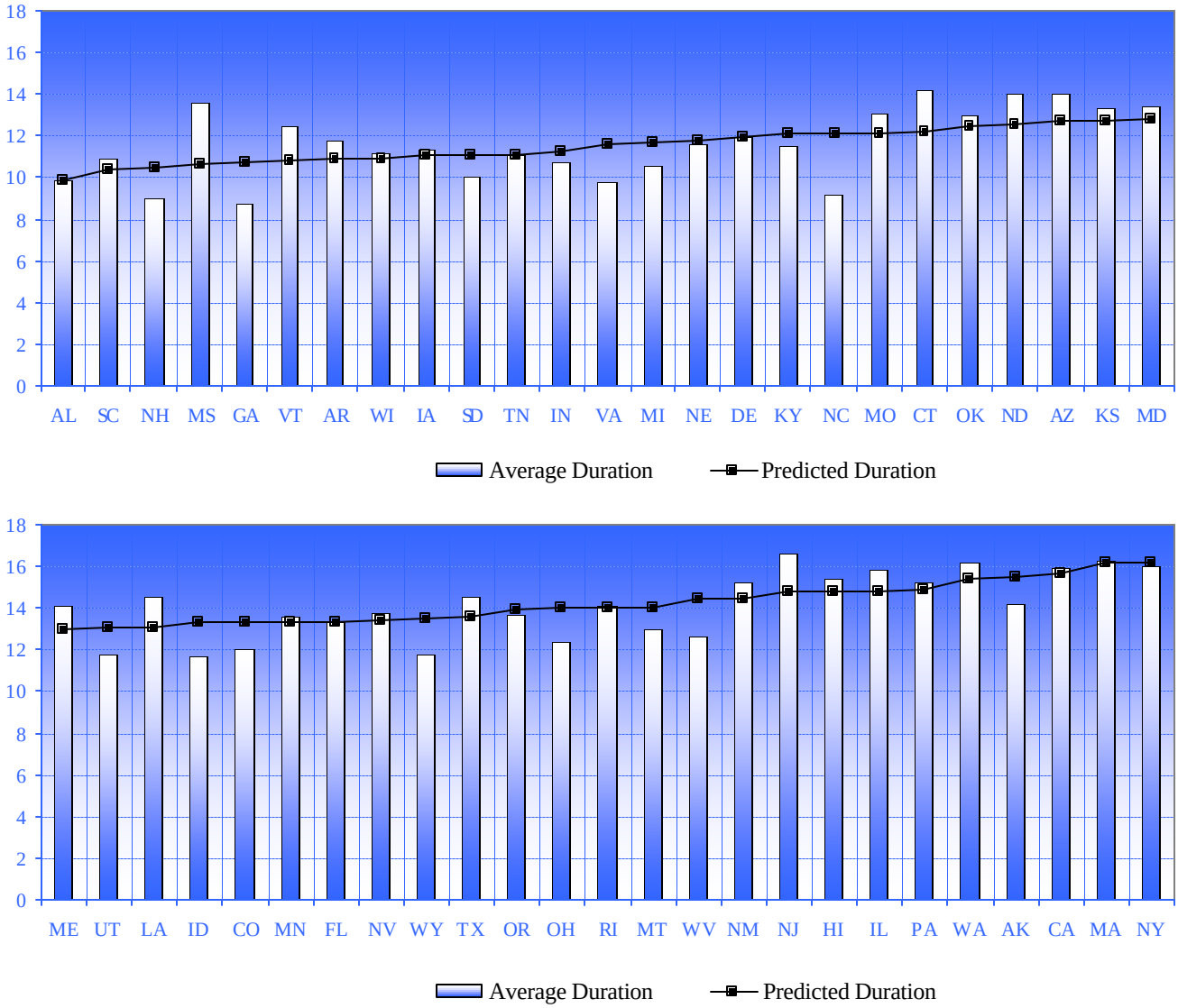
North Carolina has the third lowest average duration for UI claimants in the nation at 9.2 weeks.

However, North Carolina's Employment Service (ES), particularly its Reemployment Initiative staff, has been very successful in job placement and employment services. Over the past year, over 770,000 individuals registered for employment services and 213,005 entered employment after receiving ES services. During the same period, intensive reemployment assistance was offered to approximately 67,000 claimants. For these efforts, the average length of weeks claimants file for UI before obtaining work is currently 9.2 weeks, the third lowest in the nation.

North Carolina's ESC administrative staff, as well as ES and REI staff, have one goal in mind: assisting unemployed workers find employment quickly. An important result of these efforts is a low duration of filing, which provides savings to the UI Trust Fund and the state's employers.

[1] Average duration is calculated by dividing the weeks compensated in the previous 12 months by the number of first payments in the same period.

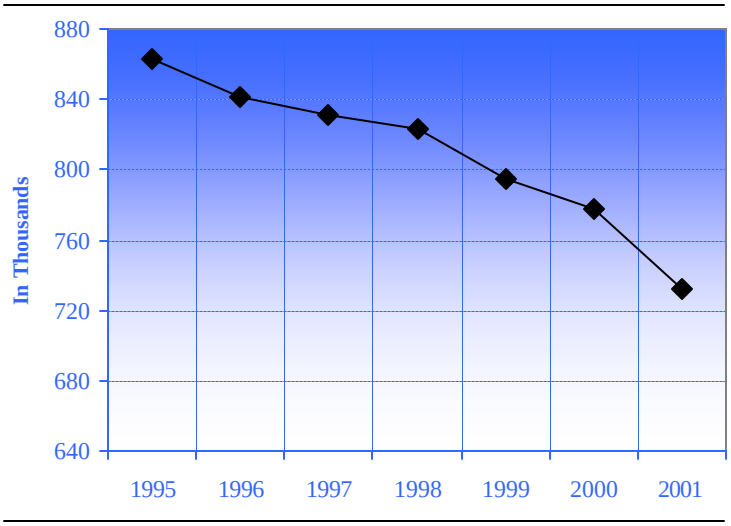
Appendix 1: Average Duration in 2000 Compared with Predicted Duration for All States



The Reemployment Outcomes of Dislocated Manufacturing Workers

Recent adverse economic conditions have particularly impacted the manufacturing sector in North Carolina. The events of September 11th will likely contribute to this, as the decline in the airline and tourist-related industries further reduces demand for manufactured products. Although most of the recent layoffs in manufacturing seem to be temporary, there have been several permanent layoff events in the state in the last few months. In addition, the volatility in manufacturing employment may encourage some workers to voluntarily leave this industry group in search of a more stable career.

Figure 1: Manufacturing Employment in North Carolina August 1995 - August 2001



As in most states, the share of manufacturing employment has been declining in North Carolina for decades. This has led to an absolute drop in employment in this industry over the last few years. Between August 1995 and August of this year, employment in manufacturing has steadily declined from 862,500 to 731,900. The majority of this decline has been in the textile industry, where employment has fallen by approximately 67,000 over this time period. Total employment in the state, however, continued to rise, with most of the new jobs being reported in the services and retail trade sectors. Industrial employment projections suggest that this trend will continue for the near future.

Manufacturing employment in North Carolina has been declining for decades.

Do dislocated manufacturing workers find jobs with comparable wages? Wages in the manufacturing sector are somewhat above the state average. In 1998, the average weekly wage in manufacturing, according to the Employment and Wages program of the Employment Security Commission (ESC), was $629.84, 17 percent above the state average wage across all industries. At the same time, the services industry's average wage was $504.88. Of course, this is a crude comparison because it does not take into account the experience or education of the individual workers who make up the employment in these industries. Such data, as well as anecdotal evidence, do not give a satisfactorily in-depth answer to how well the dislocated workers do at maintaining their standards of living.

In this article, we take a different approach by following workers who were dislocated from their jobs in 1997 and 1998 in order to see how their individual wages two years after the layoffs compare to their pre-layoff wages. This provides a view of a large number of workers during that period, to see where they actually found a job and how much they actually earned. This information is pertinent to dislocated workers today.

In 1998, the average weekly wage in manufacturing was $629.84, 17 percent above the state average wage across all industries.

Methodology: Tracking Laid-Off Workers

The North Carolina ESC has developed a data series which tracks workers who have lost their jobs due to business closures or permanent layoffs. These workers, and the companies which laid them off, are identified by the state's

Mass Layoff Statistics (MLS) program. This program only identifies businesses with at least 50 claimants for Unemployment Insurance (UI) in a consecutive 5-week period. The data show the employment history and wage earnings of these workers for four quarters before their separation and eight quarters afterwards.

Workers involved in this study were followed four quarters before layoff and eight quarters after layoff.

The data series answers many questions about laid-off workers, among them:

- In what industries will the laid-off workers find new jobs?
- How much will the laid-off workers earn in their new jobs compared with their old jobs?
- How long will it take for the laid-off workers to find new jobs?

UI taxes are collected by ESC on a quarterly basis, with no reference to a person's starting date within the quarter. Therefore, only quarterly wage data were given in this series. This presents some limitations because the hours a given person works during a quarter are not known. For example, if a worker's wages are lower in one quarter than another, we cannot determine if this is caused by a lower *hourly* wage as opposed to fewer hours of work. Such information could be obtained by a survey of dislocated workers, but this would be costly and time-consuming.

Lower wages in one quarter may be a result of fewer hours of work.

To calculate the pre-layoff quarterly wage, only the wage data on the four quarters before the layoff event occurred were used. The maximum quarterly wages of the first three quarters of the year were used in this study. (The 4th quarter [Oct. – Dec.] was excluded because wages are typically higher in this quarter due to seasonal reasons, such as end-of-year bonuses and holiday-related employment. Although earnings in the fourth quarter should be considered when estimating a worker's yearly income, we are only interested in *quarterly* earnings.)

Post-layoff wages were limited to employers covered by UI in North Carolina. Data could not be tabulated for workers who are self-employed or who earned wages in a state other than North Carolina.

Pre- and post-layoff wage information were limited to covered wages in North Carolina.

Table 1 shows the total number of layoffs and manufacturing layoffs for each quarter during the time period under study — first three quarters of 1997 and 1998. These two years were chosen because they were the most recent years for which complete data were available. They are somewhat atypical because the unemployment rate in North Carolina during this period, and the following two years, was consistently below 4 percent. The majority of layoffs occurred in the 1st and 2nd quarters of each year.

Table 1: Mass Layoffs by Quarter

Year.Quarter	Total Layoffs	Manufacturing Layoffs
1997.1	3,077	2,588
1997.2	2,860	1,833
1997.3	1,590	1,436
1998.1	4,158	2,930
1998.2	3,554	2,974
1998.3	1,447	1,110

Of the 16,686 workers laid off, 12,871 (77 percent) were employed by companies in the manufacturing sector. In some cases, individuals were laid off more than once during this period. When this occurred, the later observations for those individuals were deleted. Also, workers who were laid off by a company in the "tobacco products" industry were excluded because these companies tend to have seasonal layoffs. This left 9,405 individuals in the database. Four industries were responsible for over three-quarters of these layoffs: textiles, apparel, industrial and commercial machinery, including computer equipment, and furniture.

Prior to analysis, adjustments were made to the data to account for anomilies.

Reemployment After a Layoff

Approximately 67 percent of the laid-off manufacturing workers found reemployment within one year and 74 percent were reemployed at the end of two years. As previously stated, these percentages did not reflect the number of workers who became self-employed, found jobs outside the state or retired.

Where did these workers find jobs? The steady decline in the overall number of manufacturing jobs in the state limits the possibility of reemployment in these industries. The opportunities available for workers would be determined by the overall health of the economy and the availability of jobs in the local area that pay enough to ensure a decent standard of living.

Forty-four percent of those workers who returned to work found jobs in the manufacturing industries.

Table 2 shows the industries in which the laid off manufacturing workers were employed two years after the lay-off event. Many of these workers who returned to work were able to find jobs in the manufacturing sector. Of the 44 percent reemployed within the manufacturing industries, 16 percent were reemployed by their former employer and another 28 percent were reemployed by a company within the same industry. As expected, a substantial fraction were reemployed in either the services sector (24 percent) or the retail trade sector (9 percent).

Table 2: Primary Industries of Reemployed Manufacturing Workers Two Years after Separation*

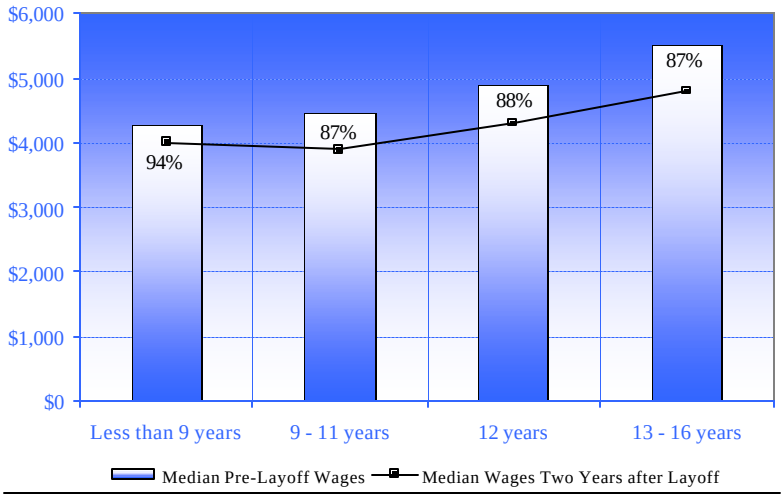
Industry Divisions	Percent
Same industry**	19
Manufacturing (other than same industry)	25
Services	24
Retail Trade	9
Wholesale Trade	4
Construction	3
Government	2
Transportation, Communications and Public Utilities	2
Finance, Insurance and Real Estate	1
Agriculture	1
Industry Code not available	10

∗ These numbers do not include quarters 1997.1 and 1997.2 due to a large proportion of missing industry codes.
∗∗ Thirty-seven percent of these were reemployed by the same company that laid them off.

The reemployment opportunities in the manufacturing sector allowed many workers to find jobs where the skills they had learned over many years could be used effectively. In the next section, we see that this helps those workers who find manufacturing jobs retain their relatively high wages. But what happens to the wages of workers who are unable to return to a manufacturing job?

Wages Earned After a Layoff

Figure 2: Quarterly Median wages of Reemployed Manufacturing Workers Two Years After Layoff



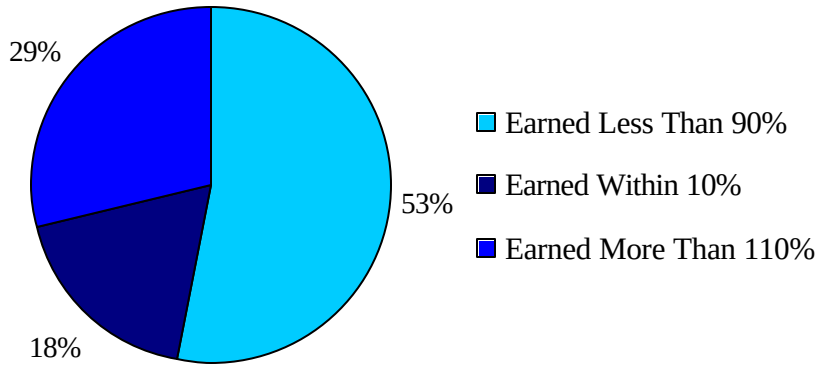
The median pre-layoff quarterly wages of the workers was $4,895. One year after the layoff event, the median wages of the workers who were reemployed was $3,781, a 23 percent decrease. By the end of two years, median quarterly wages had risen to $4,329, which was still 12 percent lower than the wages of this group before the layoff. (The median pre-layoff wages of the workers who were employed two years after the layoff were slightly higher than the median wages of all the workers who were laid off.)

Figure 2 compares the median wages of workers two years after the layoff to their pre-layoff wages, based on the industry in which the workers were reemployed. It is important to note that reemployment occurred mainly in the manufacturing, services and retail trade sectors. (Refer to Table 2.)

The median wage of the workers who were reemployed in manufacturing was approximately the same as the median wage of this group before the layoff. Those reemployed by the same company or in the same sub-industry tended to do slightly better than those who found employment in a different manufacturing industry.

Those who found jobs in the services and retail trade industries faced significant reductions in their quarterly wages. The median wage for the workers reemployed in the retail trade industry was only 63 percent of the pre-layoff median wage for this group. It should be noted that the workers who went into the services or retail trade sectors had lower pre-layoff median wages than the other workers. This may suggest that they had, on average, lower skills or less tenure than other workers.

Figure 3: Wages Earned Two Years After Layoff as a Percentage of Pre- Layoff Wages

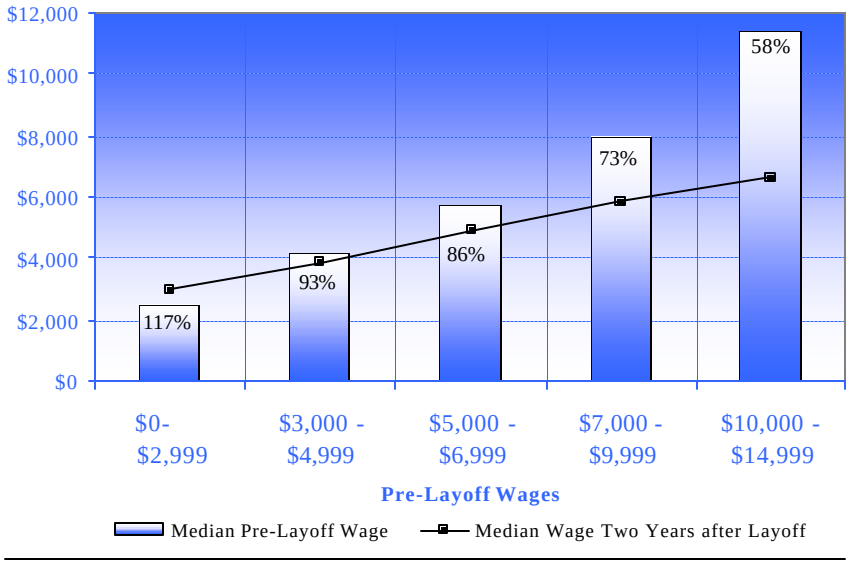


Another way of looking at the change in wages before the layoff and afterwards is to look at the distribution of each individual's change in wages. This analysis is summarized in Figure 3. Two years after the layoff event, 53 percent of the workers who were working earned less than 90 percent of their pre-layoff wages; 18 percent earned within 10 percent of their pre-layoff wages; and 29 percent earned more than 110 percent of their pre-layoff wages. Furthermore, 20 percent earned less than half their pre-layoff wages and 2 percent earned more than twice as much.

One may assume that workers with higher wages before the layoff did better than lower-income workers. Presumably, workers with higher incomes have more job skills, gained through a combination of education and on-the-job training. Many of these skills can be transferred into new careers, allowing the workers to continue earning relatively high wages. However, some of the skills may not be transferable. The returns to these job-specific skills could be lost when workers move into other occupations.

As previously stated, workers with higher quarterly wages before a layoff earned higher wages two years afterwards than workers with lower pre-layoff wages. However, Figure 4 shows that the higher-paid workers did not do as well at replacing their wages. Workers in the highest income group had the lowest wage replacement rate (58 percent).

Figure 4: Quarterly Median Wages of Manufacturing Workers by Pre-Layoff Wage Categories



Also, only 67 percent of the workers in the highest wage category were re-employed by a company in the state two years after the layoff, which is significantly lower than the reemployment rates of the other groups. It is likely that a larger fraction of these workers sought employment outside the state or became self-employed. However, as noted earlier, the data do not contain information on the wages of these workers.

Differences by Age Group

One might expect that workers in different age brackets would have different experiences after a layoff. Young workers were more likely to do well after being laid off than older workers because they had put less of an investment into their jobs and had a greater incentive to move to a different job in order to develop new skills. Older workers had invested a lot of their time developing skills which were specific to their jobs and, therefore, would likely find it harder to get new jobs outside their field that paid as well.

Figure 5: Median Wages Two Years After Layoff Compared to Pre-Layoff Wages - by Age Group

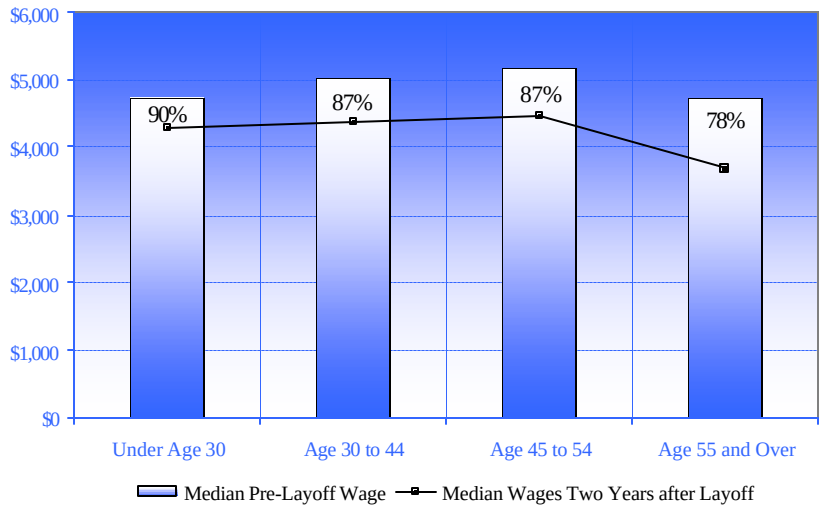
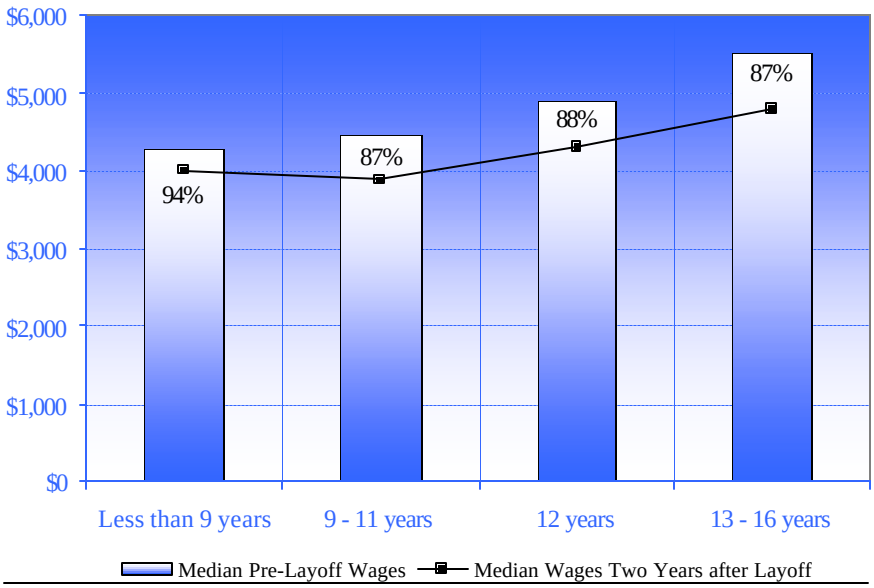


Figure 5 shows the median pre-layoff wages of workers compared to their wages two years after the layoff event, where workers were separated into age groups. The workers under the age of 30 earned 90 percent of their pre-layoff wage, while workers in the 55 and over age group earned only 78 percent of their pre-layoff wage. The median wage in the middle two age groups was approximately 87 percent of the pre-layoff median wage. Older workers were also less likely to re-enter the job market. Only 52 percent of the workers aged 55 and over had returned to work after two years, compared to approximately 77 percent of the workers in the other age groups.

Differences by Educational Level

Education is an important indicator of earnings. More educated workers typically have greater opportunities for employment and earn higher wages. Figure 6 compares the pre-layoff wages to wages earned two years after the layoff by educational level. Both before and after the layoff, median wages increased as the level of education rose. However, workers in manufacturing who have more years of education are challenged to find jobs which allow them to sustain their relatively higher standard of living; many of them may possess firm-specific skills which will not be compensated by a different employer.

Figure 6: Median Wages Two Years After Layoff Compared to Pre-Layoff Wages - by Educational Levels

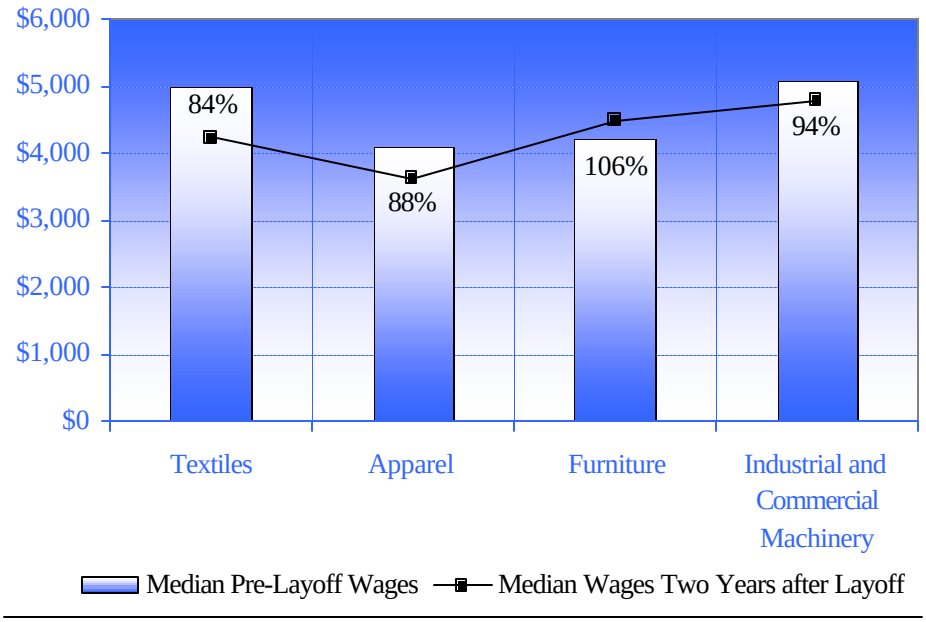


The group of workers with 12 years of education made up 55 percent of the sample. The median wage for this group two years after the layoff was 88 percent of the pre-layoff wage. The median wage of the workers with less than nine years of education was 94 percent of the pre-layoff median wage for this group. However, only 58 percent of this group were reemployed two years after their layoff. This might suggest that many of the large number of older workers in this group withdrew from the labor market to retire or return to school for further training.

Differences by Industry

As stated earlier, there were four manufacturing industries which contributed the majority of the layoffs in our database: textiles, apparel, industrial and commercial machinery, including computer equipment, and furniture. These, notably, are also the industries that seem to have been particularly hard hit during the current economic downturn. Figure 7 shows the median wages in each of these industries before a layoff and two years afterwards for laid-off workers who found reemployment in the state. Median wages were highest in the textile and industrial machinery industries before the layoff, but workers in the furniture industry did relatively better after the layoff.

Figure 7: Median Wages Two Years After Layoff Compared to Pre-Layoff Wages - by Industry

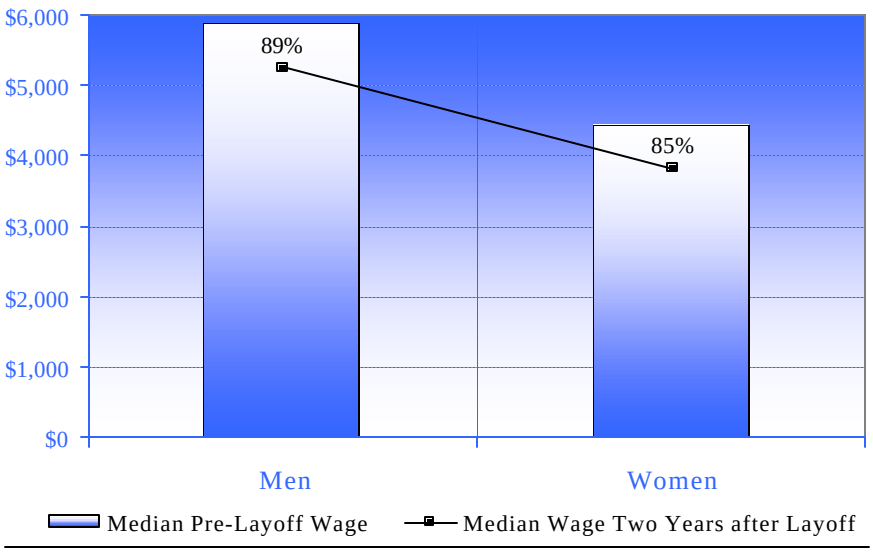


Workers in the furniture industry were much more likely to find reemployment with other companies within the same industry than workers in the other industries. This may be due to the geographic concentration of the companies that manufacture furniture. Workers in the industrial machinery industry were most likely to be reemployed in the services sector of the economy. However, most of these service jobs were in the "help supply services," which includes many high-tech contract workers.

Differences by Race and Gender

Figure 8 shows the median wages of the workers who were laid off by gender. There are significant differences between the median wages of men and women before the layoffs. Much of this difference was attributable to the fact that a larger percentage of the women were employed in the low-paying apparel industry (20 percent, compared to 8 percent of men). After two years, the median wage of the women was 85 percent of the median pre-layoff wage, while the comparable figure for men was 89 percent. The reemployment rates between men and women were approximately equal.

Figure 8: A Comparison of Median Pre-Layoff Wage to Median Wage Two Years After Layoff - by Gender

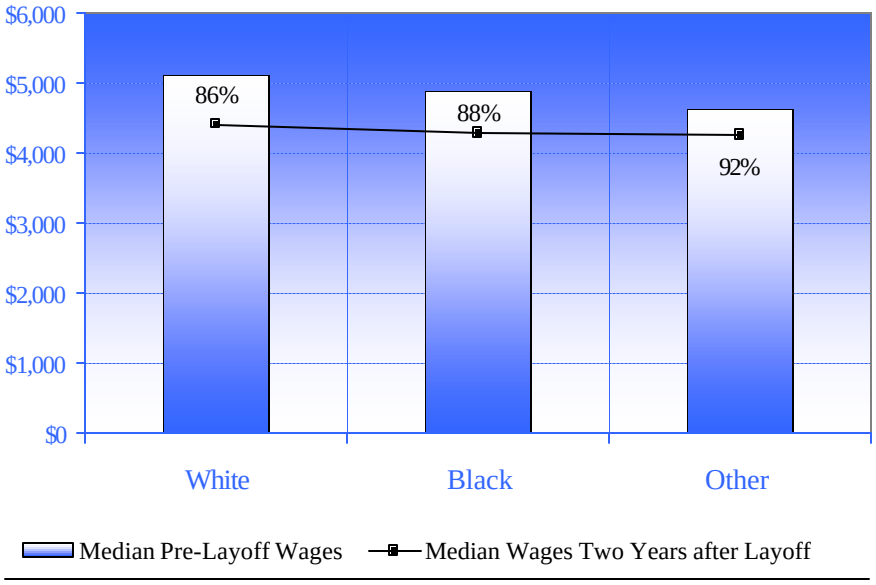


As illustrated in Figure 9, there was not a significant difference in the median pre-layoff wage of workers among the racial groups. The median wage for whites two years after the layoff was 86 percent of the pre-layoff median wage for this group, compared to 88 percent for blacks and 92 percent for the other racial groups combined (Native Americans, Asians and Hispanics). The only significant difference was in the reemployment rates: approximately 78 percent of blacks had returned to a job within the state, compared to 71 percent of whites.

Conclusion

Recent dislocations in the manufacturing sector of the North Carolina economy have led to great concern about the future living standards of those workers who have been laid off. This study has looked at manufacturing workers who were laid off in either 1997 or 1998, and who filed for UI benefits, to identify their reemployment experiences related to where they achieved reemployment and how much they earned as a percentage of their earnings before the layoff (that is, their wage replacement rates).

Figure 9: Median Wages Two Years After Layoff Compared to Pre-Layoff Wages - by Race



Those reemployed within the manufacturing sector fared better than those reemployed within the services or retail trade industries.

Overall, 74 percent of the dislocated manufacturing workers were reemployed in the state after two years. The median wage of these workers was 88 percent of the median pre-layoff wage. The workers who were reemployed in the manufacturing sector were able to retain their pre-layoff standards of living, based on the median wages of this group. The workers who fared the worst were reemployed in either the services or retail trade industries. Unfortunately, a large fraction of workers (at least one-third) fell into these categories.

This study also compared the wage replacement rates of workers in different demographic groups. Among the findings: (1) lower-paid workers had higher replacement rates than high-paid workers, (2) workers under the age of 30 did better than older workers, (3) workers with less than nine years of education had the highest replacement rate, (4) men did slightly better than women, and (5) whites did slightly less well than blacks or other races. These results are based on median wages; individual outcomes may vary.

In moving from manufacturing to service industry employment, workers may need specialized assistance.

The results of this study indicate that in an economy where workers are expected to move from the manufacturing sector to service-related industries, more must be done to ensure that the workers' standards of living are maintained. Among the measures that might be appropriate are skill training in service industry occupations, educational advancements and specialized job placement services.

LMI Happenings: New Research and Products from the LMI Division

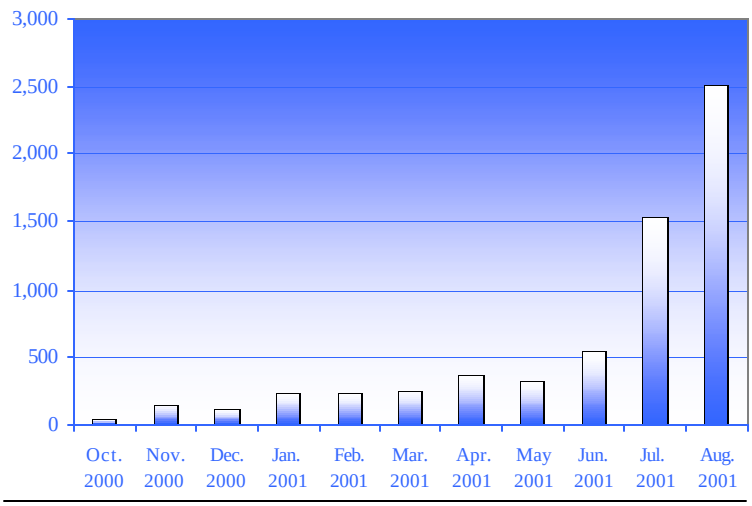
Changes in Occupational Employment Statistics

In an effort to provide more timely occupational employment by industry and occupational wage information, the Occupational Employment Statistical (OES) survey will shift from being annual to biannual starting with the 2001 survey. North Carolina is one of five states that volunteered to test the two panel concept. Those normally surveyed annually, 13,000 employers representing 1.1 million employed, will be divided equally between the two panels. Each panel will still include the basic components and requirements of a yearly survey. The Bureau of Labor Statistics, who draws North Carolina's sample and oversees its management, will continue to receive monthly reports as to the progress. The North Carolina OES staff's mission as a volunteer state is to document, particularly logistically, any problems and to troubleshoot any unforeseen occurrences. Being a test state enables North Carolina to "wet its feet" before the rest of the nation undertakes the new two panel format.

Internet Usage in Filing Claims

Offering those laid off from their jobs the ability to file initial claims via the Internet is an example of ESC's commitment to the convenience of its customers. Internet filing of initial claims was first offered to claimants in October 2000. During that period, 43 initial claims were submitted. This has grown to 2,512 in August 2001.

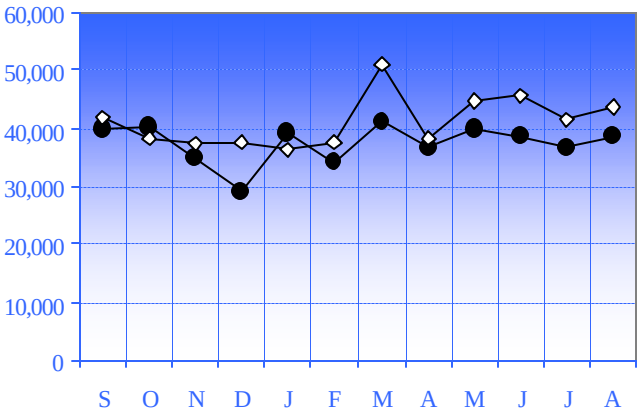
Submitted Internet Initial Claims



Economic Indicators in North Carolina (Continued from Page 2)

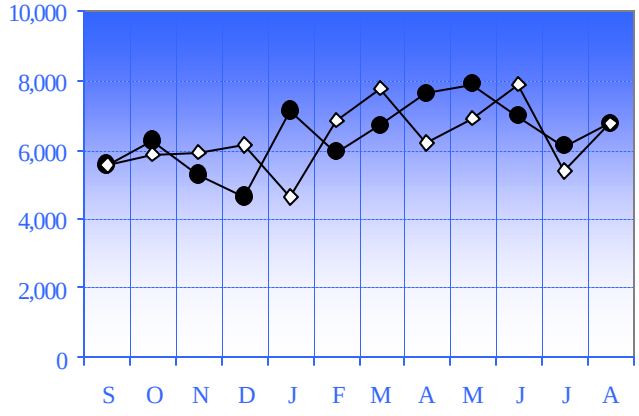
2000-2001 1999-2000

New Vehicle Registrations



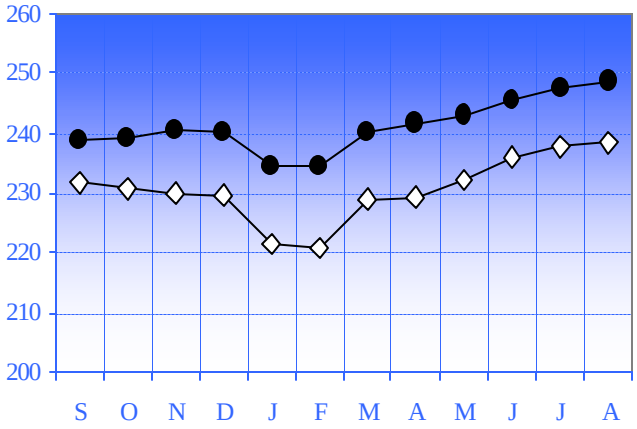
Source: NC Automobile Dealers Association

Housing Units Authorized by Building Permits



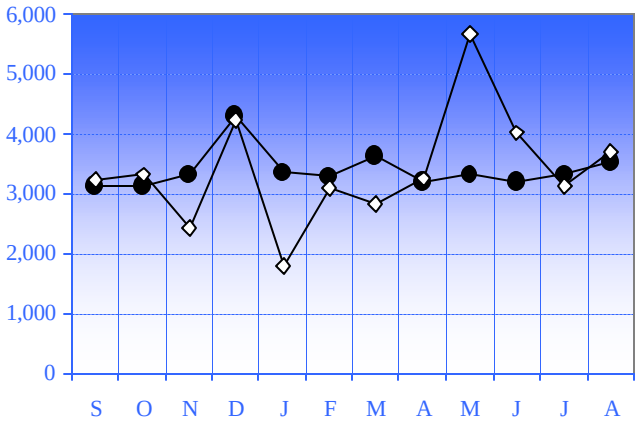
Source: US Census Bureau

Unadjusted Construction Employment, in Thousands



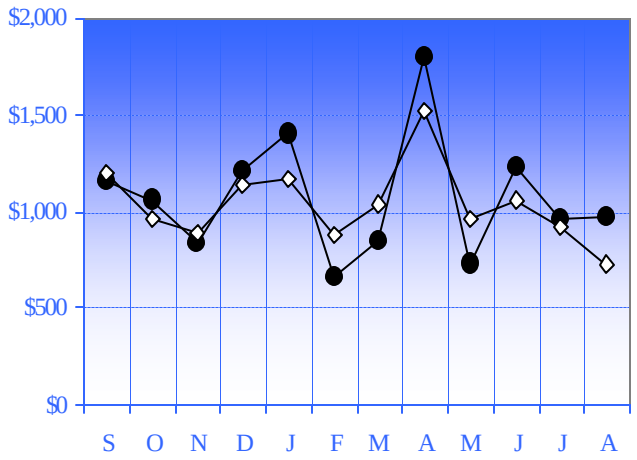
Source: ESC, Labor Market Information Division

New Business Incorporations



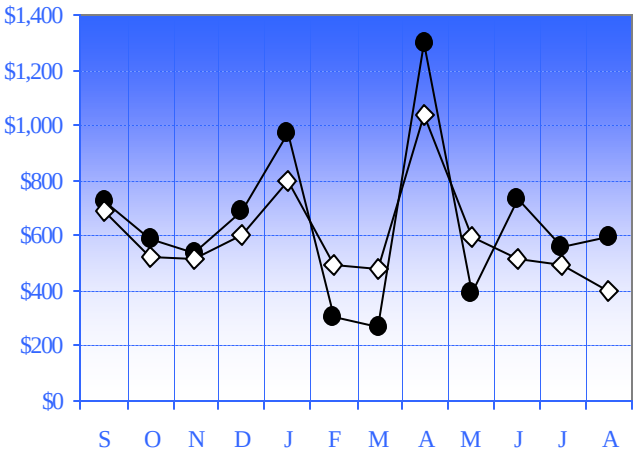
Source: NC Secretary of State, Corporations Division

Total Tax Revenues, in Millions



Source: NC Department of Revenue

Personal Income Tax Revenues, in Millions



Source: NC Department of Revenue

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